DOCUMENT RESUME

ED 371 263 CG 025 467

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TITLE Psychotherapy vs. Medication for Depression: Challenging the Conventional Wisdom.
PUB DATE Aug 93
NOTE 30p.; Paper presented at the Annual Meeting of the American Psychological Association (101st, Toronto, Ontario, Canada, August 20-24, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Cognitive Restructuring; *Depression (Psychology); *Drug Therapy; Mental Health; Psychiatrists; Psychologists; *Psychotherapy; Therapists; Therapy
IDENTIFIERS Pharmacology and Patient Care; *Tricyclic Antidepressants

ABSTRACT

Antidepressant medications are the most popular treatment for depression in the United States, despite the fact that there may be more effective and safer alternatives. This paper discusses alternative, effective psychological interventions for unipolar depression. Studies that compare and contrast psychological and pharmacological treatments for depression are highlighted. Evidence suggests that psychological interventions, particularly cognitive behavior therapy, are at least as effective as medication in the treatment of even severe depression, for both vegetative and social adjustment symptoms, and especially so when long-term follow-up is considered. Highly effective marketing strategies by pharmaceutical companies have tended to blur this evidence. Some suggestions are offered to help the clinician deal with the pharmaceutical media blitz and distinguish science from advertising. Clinicians are urged to resist the temptation to deliver an apparent quick fix in the form of a pill despite pressure from the medical establishment, the media, and even the patient. People underestimate the power and cost-effectiveness of a caring confidential psychotherapeutic relationship in the treatment of depression. The data indicate that there is no stronger medicine than cognitive-behavioral psychotherapy for depression. (Contains 71 references.) (RJM)

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PSYCHOTHERAPY VS. MEDICATION FOR DEPRESSION: CHALLENGING THE CONVENTIONAL WISDOM

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This paper is based in part on a paper presented at the 1993 Convention of the American Psychological Association in Toronto, Canada.

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ABSTRACT

Antidepressant medications are the most popular treatment for depression in the United States, despite the fact there may be more effective and safer alternatives. This paper discusses alternative effective psychological interventions for unipolar depression. Selected well-controlled studies which compare and contrast psychological and pharmacological treatments for depression are highlighted. It is concluded that the preponderance of the evidence suggests that the psychological interventions, particularly cognitive behavior therapy, are at least as effective as medication in the treatment of depression, even if severe, for both vegetative and social adjustment symptoms, especially when long-term follow-up is considered. Highly effective marketing strategies by pharmaceutical companies have tended to blur this evidence. Some suggestions are offered to help the clinician deal with the pharmaceutical media blitz and distinguish science from advertising. Based on the scientific literature, the criteria for effective psychological interventions are highlighted and some aspirational guidelines for the treatment of depression are proposed.

PSYCHOTHERAPY VS. MEDICATION FOR DEPRESSION: CHALLENGING THE CONVENTIONAL WISDOM

Depression has been called the common cold of mental health. The prevalence of unipolar depression is estimated to be between 3% and 13% with as much as 20% of the adult population experiencing at least some depressive symptoms at any given time (Amenson & Lewinsohn, 1981; Oliver & Simmons, 1985; Kessler, McGonagle, Zhao, Nelson, Hughes, Eshleman, Wittchen, & Kendler, 1994). The lifetime incidence of depression is estimated to be between 20% and 55%. Approximately 8% to 10% of depressions are the result of an underlying medical condition, suggesting physical examination is important in the comprehensive treatment of depression (Koranyi, 1979; Hall, Popkin, Devaul, Fallaice, & Stickney, 1978). However, the vast majority of depressions are not attributable to identifiable medical causes. Other data (Gatz, Pederson, Plomin, Nesselroade, & McClearn, 1992) suggest that genetic influences account for only 16% of the variance in total depression scores, and that life experiences are the most statistically important influence on self-reported depressive symptoms. Despite these data, the conventional wisdom is to view depression as a "medical illness" and drugs are the most commonly delivered treatment for depression in the U.S. and Canada (McLean and Hakstian, 1979). In stark contrast to the biological model, several psychotherapy models have evolved that use specific nondrug strategies to help alleviate depressive symptoms (Antonuccio, Ward, & Tearnan, 1989). One purpose of this paper is to highlight studies which compare psychological and drug treatments for depression.

How Effective is Psychotherapy Relative to Drug Treatment?

The classic behavioral model of depression (e.g., Lewinsohn, Youngren, & Grosscup, 1979) postulates that depression results from a low rate of response contingent positive reinforcement. The rate of reinforcement is functionally related to the availability of reinforcing events, personal skills to act on

the environment, or the potency of certain types of events. This model also suggests that there may be a negative feedback loop of social reinforcement for depression that occurs when family members and social networks are mobilized to provide support when an individual is depressed, thereby inadvertently reinforcing depressive behaviors. This brand of behavioral psychotherapy involves helping patients increase their frequency and quality of pleasant activities. It has been found that depressed patients have low rates of pleasant activities and obtained pleasure, their mood covaries with rates of pleasant and aversive activities, their mood improves with increases in pleasant activities, and they lack social skills, at least during the depressed phase, which contribute to the depression (Lewinsohn, Sullivan, & Grosscup, 1980).

We are aware of no published controlled studies which directly compare pleasant activities treatment with antidepressant medication. Wilson (1982) randomly assigned 97 depressed patients (64 completed treatment) to one of three psychological therapies (Lewinsohn's pleasant activity therapy, relaxation therapy, or minimal contact) combined with amitriptyline (150 mg./day) or placebo for a two month period. Significant improvement was noted on most measures for all of the treatments at termination and these results were maintained at 6 month follow-up. Pleasant activity therapy plus placebo was just as effective as pleasant activity therapy plus amitriptyline on patient-rated measures of outcome. At midtreatment, pleasant activity therapy had better outcome than minimal contact. Other studies suggest similar behavioral interventions are as effective as combined treatment (Roth, Bielski, Jones, Parker, & Osborn, 1982) or add to the efficacy of standard drug treatment with drug refractory depression (Antonuccio, Akins, Chatham, Monagin, Tearnan, & Ziegler, 1984).

A second approach to treating depression involves addressing the cognitions that mediate the impact of events in patients' lives (e.g., Beck,

Rush, Shaw, & Emery, 1979; Beck & Young, 1985). The theory which underlies this cognitive therapy approach asserts that it is not what happens to depressed persons that causes them to be depressed, but what they tell themselves about what happens. Some examples of common thinking patterns that can lead to depression include overgeneralized thinking, perfectionistic thinking, and the tendency to catatrophize. A very well-controlled study (Murphy, Simons, Wetzel, & Lustman, 1984) randomly assigned 87 moderately to severely depressed psychiatric outpatients to 12 weeks of cognitive therapy, nortriptyline, cognitive therapy plus nortriptyline, or cognitive therapy plus active placebo. The placebo was designed to have mild sedative and anticholinergic effects to simulate actual medication. The therapists in this study were 3 psychologists and nine psychiatrists. While the 70 patients who completed treatment showed significant improvement on measures of depression, the treatment conditions were not differentially effective at treatment termination or at one month follow-up. Inclusion of drop out patients' end point scores did not affect these results. Thus cognitive therapy alone was as effective as medications, and there was no additive effect of the combined treatment. Notably, the investigators drew venous blood samples every other week to ensure that plasma nortriptyline levels were in the therapeutic target window of 50-150 ng/ml. The recovered patients (N=44) from this study were followed for one year after treatment (Simons, Murphy, Levine, & Wetzel, 1986). Patients who had received cognitive therapy, whether or not they also received nortriptyline, were less likely to relapse. Patients who had received nortriptyline, whether or not they had also received cognitive therapy, were more likely to relapse. These results suggested that not only did medication treatment seem to make relapse more likely, but it actually may have interfered with the long-term efficacy of cognitive therapy. Many other studies have shown cognitive therapy to be as effective or superior to antidepressant medication or combined cognitive/drug treatment (Beck, Hollon, Young,

Bedrosian, & Budenz, 1985; Blackburn, Bishop, Glen, Whalley, & Christie, 1981; Blackburn, Eunson, & Bishop, 1986; Covi & Lipman, 1987; Evans, Hollon, Derubeis, Piasecki, Grove, Garvey, & Tuason, 1992; Hollon, DeRubeis, Evans, Wiemer, Garvey, Grove, & Tuason, 1992; Kovacs, Rush, Beck, & Hollon, 1981; Rush, Beck, Kovacs, & Hollon, 1977). Other studies suggest that cognitive therapy adds to the efficacy of standard antidepressant drug treatment (Dunn, 1979; Miller, Norman, Keitner, Bishop, & Dow, 1989).

A third psychotherapeutic approach to treating depression involves addressing social interaction problems experienced by the patient. Very often patients experience dissatisfaction with family, job, and social relationships (Libet & Lewinsohn, 1973). Depressed individuals often have negative self-perceptions of their social competence and have a negative impact on those around them (Coyne, 1976). Behavioral skill deficits include a tendency to be less assertive, less positive, to have negative facial expressions, poor eye contact, and to display less activity in group interactions (Youngren & Lewinsohn, 1980).

McLean and Hakstian (1979) treated a total of 178 depressed outpatients with either 10 weeks of insight oriented dynamic psychotherapy, behavior therapy emphasizing social skills training, amitriptyline (150 mg/day), or a relaxation control condition. All patients met diagnostic criteria for primary unipolar depression and had an average pretreatment Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) score of 27. Behavior therapy involved skill training in communication, behavioral productivity, social interaction, assertiveness, decision making, problem solving, and cognitive self-control. Unannounced blood samples were drawn on 2 random visits over the treatment period to ensure compliance. Results showed behavior therapy to be superior on 9 of 10 outcome measures at the end of treatment and 7 of 10 measures at the 3 month follow-up. The superiority of behavior therapy included symptomatic measures as well as measures of social adjustment. The

behavior therapy condition had the lowest dropout rate, 5%, compared to 26% for insight, and 36% for the drug condition. Insight oriented psychotherapy was the least effective on most outcome measures at both evaluation periods; 30% of those patients remained in the moderate to severe range of depression compared to 19% in the control condition. There were no significant differences between drug therapy and relaxation therapy on any outcome measure.

McLean and Hakstian (1990) conducted a 27 month follow-up of their 1979 study. Of the four treatment conditions, behavior therapy ranked the best on 6 of 7 outcome measures, and ranked second on the 7th outcome measure. Behavior therapy performed significantly better than the relaxation control condition on measures of personal activity, social skills, and mood. Behavior therapy was better than dynamic psychotherapy on measures of personal activity. The drug therapy condition was not statistically superior to any of the treatment or control conditions on any dimension. Also, compared to the other treatment conditions, twice as many behavior therapy patients (i.e., 64%) fell within one standard deviation of the normal, nondepressd control group distribution on depressed mood. One other study has shown social skills training to be at least as effective as antidepressant medications or the combined treatment of depression (Hersen, Bellack, Himmelhoch, & Thase, 1984) while another study has demonstrated that adding social skills to standard antidepressant treatment was superior to drugs alone (Miller, Norman, Keitner, Bishop, & Dow, 1989). The inferior performance of insight-oriented treatment of depression has also appeared in other studies (Covi & Lipman, 1987; Sanchez, Lewinsohn, & Larson, 1980).

The foregoing evidence suggests that three somewhat different psychotherapeutic interventions are as effective or more effective than antidepressant medications in the treatment of depression. These treatment options include increasing pleasant activities, changing maladaptive cognitions, and improving social skills. Combining these treatments with

antidepressant medications does not appear to appreciably enhance their efficacy. Effective psychological interventions seem to have the following factors in common (Zeiss, Lewinsohn, & Munoz, 1979): (1) a well elaborated rationale and theory guiding the treatment; (2) training in skills the patient can learn; (3) an emphasis on the independent practice of the skills outside of the therapy session; (4) a time-limited treatment with specific goals; (5) encouragement for patients to attribute changes to their own efforts and skills rather than to the skillfulness of the therapist; (6) a maintenance plan for follow-up assessment and follow-up intervention.

What Do Meta-analyses Indicate?

Isolated studies provide pieces of the puzzle but meta-analyses covering many studies help put the puzzle together. One such meta-analysis of 56 outcome studies considered the relative effectiveness of drug therapy and psychotherapy for treating unipolar depression in adults (Steinbreuck, Maxwell, & Howard, 1983). The evidence suggested that, when compared to a control group, psychotherapy had a larger impact (mean effect size = 1.22) than drug therapy (mean effect size = .61).

Another meta-analysis (Conte, Plutchik, Wild, & Karasu, 1986) investigated whether combined psychotherapy and pharmacotherapy is superior to either treatment alone in the treatment of outpatients with unipolar depression. The researchers reviewed 17 controlled studies reported between 1974 and 1984. In the analysis, studies were given different weights based on the scientific quality of the design, which were multiplied by weights based on the outcome of the study. The results indicated that combined active treatments (drug plus psychotherapy) were appreciably (53% of the weighted evidence) more effective than minimal contact plus placebo, moderately superior to pharmacotherapy alone (29% of the evidence), but only slightly superior to psychotherapy plus placebo (19% of the evidence), psychotherapy alone (18% of the evidence), or pharmacotherapy plus minimal contact (15% of the evidence). In other words,

82% of the weighted evidence indicated no advantage of combined treatment over psychotherapy alone. A closer inspection of the data indicates that, of the four studies that employed a combined behavioral plus drug condition in comparison with a behavioral plus placebo medication, 97% of the evidence indicated no significant difference. Interestingly, 3% of the evidence favored the behavioral intervention when combined with the placebo rather than the tricyclic medication.

As part of a quantitative analysis, Dobson (1989) reviewed eight studies comparing Beck's cognitive therapy versus tricyclic medication in the treatment of depressed outpatients. This review suggested that cognitive therapy is superior to drug treatment. The average cognitive therapy recipient did better than 70% of the medication patients, with an average differential effect size of .53 in favor of cognitive therapy.

Another meta-analysis (Hollon, Shelton, & Loosen, 1991) reviewed nine randomized controlled studies which compared cognitive therapy and tricyclic medications in the treatment of nonbipolar depressed outpatients. These authors concluded that (1) cognitive therapy appears to be roughly comparable to medications in the treatment of the acute episode, (2) combined cognitive therapy and drug treatment does not appear to be clearly superior to either modality alone, although trends of potential synergistic enhancement justify additional studies with larger samples, and (3) treatment with cognitive therapy (with or without drugs) during the acute episode appears to reduce the risk of subsequent relapse following termination. However, because of limitations in study design and execution, low power, and possible differential retention (i.e., drug conditions might be more likely to retain relapsers), the authors conservatively considered their conclusions to be tentative.

Why Does the Myth of Drug Superiority Persist?

Despite the foregoing evidence to the contrary, the conventional wisdom in medicine, among the lay public, in the media, and even within the mental health

profession, continues to be that drugs are more effective than psychotherapy for depression (especially severe depression), and that the combination treatment is superior to either one alone. The studies by Weissman and Klerman are usually cited to support the superior efficacy of combined psychotherapy and drug treatment (Weissman, Klerman, Prusoff, Sholomskas, & Padian, 1981; Weissman, Prusoff, DiMascio, Neu, Goklaney, & Klerman, 1979). These researchers conducted a randomized controlled trial comparing 16 weeks of combined amitriptyline (flexible divided dose of 100-200 mg/day) and short-term interpersonal psychotherapy, either treatment alone, and nonscheduled supportive psychotherapy in depressed outpatients. While all the treatment conditions had better outcome than the nonscheduled control group, interpersonal therapy outperformed drug treatment on adjustment measures (e.g., mood, apathy, suicidal ideation, work, and interest), and the drug treatment was superior on vegetative symptom measures. The combined treatment outcome was additive. It should be noted that the psychotherapy was not behavioral and did not require behavioral practice between sessions. Also, the study used an inert placebo and relied on clinician-rated outcome measures. At 1 year follow-up, there was statistically superior outcome on social functioning for patients who had received psychotherapy, whether or not they had received medications. There were no statistically detectable effects of medications at follow-up.

The recent multi-site NIMH collaborative study on the treatment of depression (Elkin, Shea, Watkins, Imber, Sotsky, Collins, Glass, Pilkonis, Leber, Docherty, Fiester, & Parloff, 1986) has been cited to suggest that drugs are superior to psychotherapy in the treatment of severe depression. This ambitious project compared Beck's version of cognitive therapy, Klerman and Weissman's interpersonal therapy, imipramine (mean of 185 mg/day with a median plasma level of 231 ng/mL), and a pill placebo group. The authors concluded that there were no differences in overall effectiveness but imipramine appeared

to be more effective with severely depressed patients. The results of the analysis actually showed that imipramine did marginally better than the placebo condition with severely depressed patients at termination, but only on clinican-rated measures like the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960) or the Global Assessment Scale (GAS; Endicott, Spitzer, Fleiss, & Cohen, 1976), and not on patient-rated measures like the BDI. Despite media reports to the contrary, drugs were not significantly better than either of the psychotherapies with severely depressed patients. Since the placebo was inert, this study like many drug studies (Hughes & Krahn, 1985), may have been inadvertantly "unblinded". Also, the medication condition may have inadvertently been designed more like a combined treatment condition because the clinical management provided "supportive psychotherapy". It is noteworthy that patients in the medication condition were still on medication when the termination assessments were done, while the comparison conditions were actually terminated prior to assessment, a common practice in many drug studies.

An 18 month follow-up (Shea, Elkin, Imber, Sotsky, Watkins, Collins, Pilkonis, Beckham, Glass, Dolan, & Parloff, 1992) of the original NIMH collaborative study was conducted. Although not statistically significant, the psychotherapies outperformed imipramine on almost every outcome measure. In fact, cognitive therapy was ranked the best on 11 of the 13 outcome measures reported in the published tables. There was a slight advantage of the psychotherapies over drug treatment with the milder depressions. The treatments were not statistically different in outcome with severe depression. There did appear to be a reduced risk for relapse among the cognitive behavior therapy patients. Of all patients entering treatment, the cognitive behavioral condition had the highest percentage of patients recover, the highest percentage of patients recover without a subsequent major depressive relapse, and the highest percentage of patients recover without major depressive relapse

or treatment seeking. Patients who had received imipramine were most likely to seek treatment during the follow-up period, had the highest probability of relapse, and had the fewest weeks of minimal or no symptoms. These results are consistent with the relatively poor long-term drug outcomes reported in the studies cited earlier.

Some investigators have argued that the relatively high relapse rate after drug treatment indicates that depression should be treated like a chronic medical disease, requiring ongoing nonstop medication treatment indefinitely (e.g., Kupfer, Frank, Perrel, Cornes, Mallinger, Thase, McEachran, & Grochocinski, 1992). This logic appears tautological: Drug treatment results in a higher relapse rate than cognitive behavior therapy, therefore, patients should be maintained on drugs to prevent relapse.

A recent well-controlled study with two years of follow-up evaluated the impact of continuing medication (Hollon, et al., 1992; Evans, et al., 1992) by randomly assigning 107 nonpsychotic, nonbipolar depressed patients to 12 weeks of cognitive therapy alone, imipramine hydrochloride alone (mean of 232mg/day with plasma levels at least 180 ng/mL), or combined treatment. A total of 64 patients completed treatment and there was no differential attrition. Cognitive therapy and pharmacotherapy did not differ in terms of symptomatic response, even in severely depressed patients. Initial severity predicted poorer response within the pharmacotherapy condition but not within cognitive therapy. The combined treatment was not significantly more effective than the single treatments. Two patients committed suicide with study medication and a third patient made a nonlethal attempt. Two other patients were withdrawn from pharmacotherapy alone because of severe suicidal risk. Three other patients were withdrawn from pharmacotherapy alone because of severe side effects. During follow-up, half of the patients treated with pharmacotherapy alone continued to receive study medications for the first year of follow-up. Among patients showing at least partial response, patients previously treated

cognitively (with or without medications) showed a significantly lower relapse rate compared to imipramine patients from whom medications were withdrawn. Thus patients treated with three months of cognitive therapy (either alone or in combination with medications) had less than half the rate of relapse shown by patients who received three months of medication alone. The relapse rate after 3 months of cognitive therapy did not differ from that of patients provided with 15 months of medication. Rather than supporting long-term drug treatment, these data support the cost effectiveness of treating depression with cognitive-behavior therapy because after only 12 weeks of treatment, patients are just as likely to respond, have a comparable relapse risk, and there are fewer medical risks.

So, despite the conventional wisdom, the preponderance of the evidence suggests that drug treatments do less well than psychotherapy during follow-up (e.g., Blackburn et al., 1986; Evans et al., 1992; Hersen et al., 1984; Kovacs et al., 1981; McLean & Hakstian, 1990; Rush et al., 1977; Shea et al., 1992; Simons et al., 1986; Weissman et al., 1981) and are not more effective with severe or endogneous depression (Blackburn et al., 1981; Greenberg, Bornstein, Greenberg, & Fisher, 1992b; Hollon et al., 1992; Shea et al., 1992). Even the American Psychiatric Association's own committee review of 12 studies concluded there was no demonstrable relationship between endogenous depression and treatment outcome (Zimmerman & Spitzer, 1989).

Upon Inspection, The Drug Emperor Has No Clothes

It has been generally assumed that antidepressants have been clearly established as more effective than placebo in double blind controlled research. However, Morris and Beck (1974) conducted a comprehensive literature review that found tricyclic antidepressants were superior to a placebo in 63 out of 91 controlled studies conducted between 1958 to 1972. In other words, about 31% of the published studies during that period showed that antidepressant medications did no better than a placebo medication. Since studies with

negative results are much less likely to be published, these results may be considered less than conclusively supportive of drug treatments. Most controlled drug studies utilize an inert placebo which may in effect "unblind" the studies because the clinican raters can tell who is receiving the active medication by determining who is having side effects (Hughes & Krahn, 1985). This could be a serious flaw since most drug studies rely primarily on potentially biased clinican-rated measures (e.g., the HRSD and the GAS) rather than patient-rated measures (e.g., the BDI). It has been shown in an extensive meta-analysis (Lambert, Hatch, Kingston, & Edwards, 1986) that patient-rated measures show a significantly smaller effect size than clinician-rated measures, i.e., patient raters tend to see less improvement than clinican raters.

A recent meta-analysis (Greenberg, Bornstein, Greenberg, & Fisher, 1992) reviewed 22 controlled studies which compared a placebo (usually inert) with an "old" antidepressant and a "new" antidepressant. Even if the clinician rater were "unblinded" by side effects, he or she would have difficulty distinguishing which of the active medications the patient was receiving, in effect making these studies somewhat "blinder". Overall, the "old" antidepressants and the "new" antidepressants showed a small (average effect size of .25 and .31 respectively) advantage over placebo on clinican-rated measures. Considering most studies with nonsignificant findings go unpublished, these authors speculated that this advantage may in fact be negligible. Interestingly, when using patient-rated outcome measures, the "old" antidepressants were not significantly more effective than placebo. The data suggested the "new" antidepressants didn't fare much better. If patients cannot tell the antidepressants are more effective than placebo, one must ask how meaningful the difference actually is.

Finally, a recent review suggested there is no credible evidence that antidepressants are an effective treatment for depressed children or

adolescents (Ambrosini, Bianchi, Rabinovich, & Elia, 1993). These data are particularly disturbing given recent trends to use these medications with children.

What's Wrong with Drugs Anyway?

If one accepts the data and the argument that drug treatment of depression may not be as effective as the conventional wisdom would suggest, it does not necessarily follow that drugs should be relegated to a second class treatment status. Some patients prefer medication to psychotherapy, and because of prevailing media, strongly believe in their efficacy. By prescribing medication, a clinician could take advantage of any nonspecific and placebo factors associated with drug treatment. However, some of the costs of medications are insidious. It is important to note that tricyclic antidepressants have been identified as the third largest cause of drug related deaths after alcohol-drug combinations and heroin, and they are the fourth highest cause of overdose in U.S. emergency rooms (Egli & Stokes, 1993). The therapeutic dose of tricyclics is often close to the lethal dose, death will likely result from taking a two week supply, and 70-80% of those who overdose do not reach the hospital alive (Egli & Stokes, 1993). Research suggests that antidepressants are the most common agent used in suicide by poisoning (Kapur, Mieczkowski, & Mann, 1992) and are responsible for half of serious adult overdoses (Kathol & Henn, 1982).

Even at therapeutic levels there are many potential side effects. The anticholinergic side effects include dry mouth, blurred vision, urinary retention, constipation, and delirium (Settle, 1992). There may also be sedative effects, cognitive deficits, speech blockage, excessive perspiration, weight gain, and dental caries. There is some evidence of risk for extrapyramidal symptoms, seizures, sleep disruption, and mania, depending on the type of antidepressant. The cardiovascular risks include heart failure (especially with bundle branch block), hypertension, hypotension, arrythmias,

and sudden death (Jefferson, 1992). Tricyclic antidepressants appear to increase the risk of sudden unexpected death by over 400% for patients diagnosed with cardiac disease (Moir, Crooks, Cornwell, O'Malley, Dingwall-Fordyce, Turnbull, & Weir, 1972). Sexual side effects have commonly included low libido, erectile disorder, orgasm or ejaculatory impairment, and less commonly, painful ejaculation, penile anesthesia, spontaneous orgasm, and even yawning combined with orgasm (Seagraves, 1992). There is a well-documented withdrawal phenomenon associated with tricyclic medication (Dilsaver & Greden, 1984). The most common withdrawal symptoms include general somatic or gastrointestinal distress with or without anxiety and agitation, sleep disturbance characterized by excessive and vivid dreaming and initial and middle insomnia, movement disorder, and psychic and behavioral activation extending on a continuum to mania. Use of antidepressants in medically ill inpatients has resulted in a 60% unfavorable response rate, and 32% had to be discontinued due to significant side effects, the most common of which was delirium (Popkin, Callies, & Mackenzie, 1985). Thus, there is much evidence that antidepressant medications are not benign treatments. There is also new evidence that improvement in cognitive therapy (in patients with obsessive compulsive disorder) is associated with therapeutic alterations in brain chemistry without the use of any medication (Baxter, Schwartz, Bergman, Szuba, Guze, Mazziotta, Alazraki, Selin, Ferng, Munford, & Phelps, 1992) and without the attendant medical risks.

Good Marketing Can Overcome Bad Data

Why do antidepressant medications continue to be the most common treatment for depression in the United States? At least part of the answer is good marketing. Breggin (1991) has documented the remarkable and powerful influence of drug company money on psychiatric journals, continuing education, and even NIMH. Given that 20% of the the American Psychiatric Association budget is underwritten by drug company advertising, it is understandable that the

biological model, with an emphasis on drug treatment, is now embraced almost exclusively in most psychiatric residency training programs. Many medical school faculty are paid consultants to drug companies. Many, if not most of the continuing education presentations on antidepressant medications are sponsored and funded by drug companies, which may be less than fully objective when it comes to promoting a product on which their considerable profits depend. It is important for attendees at such presentations to consider the source of training information and any proprietary interest the presenters may have in the procedures and products they promote. As an analogy, consider the purchase of an automobile. Should a consumer go to the dealer for information regarding the car's performance or would a consumer be better advised to consult an independent source, like Consumer Reports, to evaluate the product? Independent sources conservatively estimate that the $63 billion-a-year drug industry spends around $5 billion annually on drug promotion (Anonymous, 1992a). During the last decade drug promotion money has been spent on marketing strategies which include but are not limited to the following: (1) giving free samples and free information to doctors, (2) advertising in medical journals, (3) using "ask your doctor" media ads aimed directly at the consumer, (4) putting on promotional dinner meetings with substantial gifts or even cash money given to attendees, (5) paying consultants to speak at scientific meetings where it is possible to circumvent FDA guidelines that require disclosure of side effects and prohibit discussion of unapproved uses, (6) funding research projects with a high likelihood of producing favorable results, (7) terminating negative studies before they are ready for publication, (8) involving large numbers of physicians in studies which are not intended to yield publishable information but simply designed to yield maximal product exposure, (9) including "look-a-like" publication supplements in professional journals, (10) offering to pay journalists to cover their products, (11) offering prepackaged information for journalists in the form of

video news releases which appear independently developed, and (12) helping to fund patient advocacy and other public-interest groups so the consumer group appears to be publicly carrying the banner of a particular drug (Anonymous, 1992b).

At research forums, antidepressant medications are now being advocated for the treatment of "co-morbid" anxiety disorders. Likewise, anxiolytic medications are being touted as effective in the treatment of co-morbid depressive disorders. We view this as a particularly dangerous marketing development because anxiolytics are central nervous system depressants and appear to exacerbate depression (Danton, 1993). Drug company sponsored presentations are often inappropriately interpreting the data to suggest that long-term and even lifetime antidepressant drug treatment is necessary in the treatment of depression. There are attempts to instill anxiety and fear in practioners by implying ethical and malpractice problems if one omits drug treatment, when in reality the use of medications probably increases malpractice exposure.

Finally when research highlights the risks, side effects, and relapse problems of the "old" medications, the pharmaceutical companies seem to come out with "newer, safer and more effective" drugs which have a much smaller research base. This appears to be the case with the newer selective serotonin reuptake inhibitors (SSRI's) and the drug industry attempts to replace the "dirty" (less selective) tricyclic antidepressants.

We offer several strategies for dealing with some of these advertising tactics. First, we suggest that attendees ask presenters to disclose any relationship existing with a commercial grantor for continuing medical educational sessions, so that all allegiances are clear. Second, ask conference organizers if there are any drug company sponsored workshops on the agenda and ask them to identify them in any conference literature. Third, ask professional organizations to require presenters to list all paid affiliations,

including drug company affiliations, on program announcements.

Drug representatives will usually tell you that their drug is at least as effective and safer than similar products. Ask them to prove it with data. Ask questions about whether an active or inactive placebo was used in any controlled drug studies. Ask them to show you data with patient-rated measures (e.g., the BDI) not just clinician rated measures (e.g., the HRSD). Ask them to show you data about what happens when the medication is withdrawn. Ask them about the side effects, risks for death, and overdose potential. Ask them about medical contraindications and ask them how their drugs interact with other medications. While the newer SSRI's may be safer when used alone, there are data to suggest that they are more dangerous when combined with other medications (e.g., Settle, 1992). Given the common use of multiple concurrent medications, it is not clear that the newer antidepressants will actually result in safer outcome. Take some action and educate your patients and your colleagues regarding this state of affairs.

Other factors contributing to high use of antidepressant medications include the higher rate of reimbursement by third party payers for drugs relative to psychotherapy (usually 80% vs. 50%) and the pressure from some managed care organizations to use a seemingly quicker drug treatment. However, it should be noted that cognitive behavioral treatments appear to be quite effective when delivered in a group format (e.g., Brown & Lewinsohn, 1984), providing a safe, time efficient, cost effective alternative to standard individual drug treatment.

Aspirational Depression Treatment Guidelines

Several conclusions may be drawn from the foregoing information. First pharmacologic approaches do not directly affect psychosocial factors. Psychotherapy can teach skills to help prevent depression. Medications often result in poor compliance, a high dropout rate, and as much as a 60% nonresponder rate with some patient populations. Many antidepressants are

cardiotoxic, have dangerous side effects, and are often used to overdose. The preponderence of the evidence suggests that the psychological interventions, particularly cognitive behavior therapy, are at least as effective as medications in the treatment of depression, even if severe, for both vegetative and social adjustment symptoms, especially when outcome is assessed with patient-rated measures.

While the recent depression treatment guidelines published by the Agency for Health Care Policy and Research (AHPCR, 1993) are a step toward helping physicians identify previously undetected depression, they appear to over rely on the biological model, overemphasize the benefits of antidepressant medications, underemphasize the risks and side effects of these drugs, and underemphasize the efficacy of psychotherapy (See Munoz, Hollon, McGrath, Rehm, & VandenBos, 1994). Based on the foregoing literature, the following alternative aspirational guidelines for treating depression are offered: (1) psychotherapy, notably cognitive behavioral intervention, should be considered the treatment of choice for depression primarily because of superior long-term outcome and fewer medical risks compared with drugs; medications may be considered for nonresponders to psychotherapy after the costs and benefits have been carefully weighed; (2) if antidepressants are used, include psychotherapy because of the high risk for relapse with medications alone; (3) limit the use of psychotropic medication to one at a time because research studies have not adequately evaluated the health risks of combined medications; (4) if antidepressant medication is used, use the lowest, safest therapeutic dose for the shortest possible duration (usually 12 weeks or less) because of the side effects, cardiotoxic risks, risk of suicide, possible interference with psychotherapy, and the scarcity of long-term outcome or risk data; (5) don't use antidepressants (especially tricyclics) with medical-surgical inpatients, especially patients diagnosed with cardiac disease, because of high nonresponder rates, intolerance of side effects and even sudden death; (6)

don't prescribe antidepressants (especially tricyclics) for acutely suicidal patients due to the ease of serious overdose; (7) don't prescribe antidepressants for children or adolescents because there is no evidence they are effective and little is known about the health risks for young people.

In conclusion, we feel that clinicians need to resist the temptation to deliver an apparent quick fix in the form of a pill despite considerable pressure from the medical establishment, the media, and even the patient to do so. There is a tendency to underestimate the power and cost-effectiveness of a caring confidential psychotherapeutic relationship in the treatment of depression. The data suggest there is no stronger medicine than cognitive-behavioral psychotherapy for depression. If we as therapists can learn to tolerate the emotional suffering of depressed patients and help guide them through it with specific psychotherapeutic strategies, as many as 80% will respond within 8 to 12 weeks of treatment, without drugs. For those who don't respond to psychotherapy, the costs and benefits of drug treatment can then be carefully weighed.

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Note: The authors would like to thank Peter Lewinsohn, Ph.D., John Schafer, Ph.D., Steve Graybar, Ph.D., Grant Miller, M.D., David Johnson, M.D., and William Torch, M.D., for their editorial comments on earlier drafts of this paper.